

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (original): An image signal processing device for executing signal processing on image data representative of an input image, said device comprising:

a signal processing circuit for executing signal processing on the image data for correction and recording, and executing noise reduction on individual image data in accordance with at least one of image inputting conditions and a pixel level;

said signal processing circuit comprising:

a threshold generating circuit for generating a threshold by taking account of at least one of the image inputting conditions and the pixel level; and

a noise reducing circuit for producing, during the noise reduction, a difference in level between, subject pixel data whose noise is to be detected and a mean value of said subject pixel data and pixel data around said subject pixel data, and selecting either one of said subject pixel data and said mean value in accordance with said difference and the threshold.

2. (original): The device in accordance with claim 1, wherein said threshold generating circuit comprises:

a condition collecting circuit for collecting various conditions for determining the threshold; and

a calculating circuit for calculating the threshold in accordance with the conditions collected.

3. (original): The device in accordance with claim 2, wherein said threshold generating circuit further comprises a threshold correcting circuit for correcting the threshold in accordance with a level of the subject pixel data.

4. (original): The device in accordance with claim 3, wherein said condition collecting circuit collects at least one of pickup sensitivity, an exposing condition, a shooting mode, sharpness, a kind of a light source, an operation, and a display magnification.

5. (original): The device in accordance with claim 1, wherein said noise reducing circuit comprises:

a difference calculating circuit for calculating a difference in level between the subject pixel data and the pixel data around said subject pixel data;

a mean value calculating circuit for calculating a mean value of the subject pixel data and the pixel data around said subject pixel data;

a comparing circuit for comparing the difference and the threshold to thereby determine which of the subject pixel data and the mean value should be used; and

a switch for selecting either one of the subject pixel data and the mean value in accordance with a result of comparison output from said comparing circuit.

6. (original): The device in accordance with claim 5, wherein said mean value calculating circuit multiplies each pixel data around the subject pixel data by a particular weighting coefficient on the basis of a position of said pixel data to thereby calculate the mean value.

7. (currently amended): ~~[[An]]~~ A method of processing image data representative of an input image to thereby generate an image, comprising:

a first step of collecting image inputting conditions under which the image is input;
a second step of calculating a threshold for determining, based on the image inputting conditions, whether or not to use subject pixel data to which noise reduction is to be applied;
a third step of calculating a mean value of a level of the subject pixel data and levels of pixel data around said subject pixel;
a fourth step of producing a difference between the level of the subject pixel data and the mean value; and
a fifth step of comparing the difference and the threshold to thereby select either one of the subject pixel data and the mean value.

8. (original): The method in accordance with claim 7, further comprising the step of correcting the threshold value calculated in said second step before said fifth step.

9. (original): The method in accordance with claim 7, wherein the image inputting conditions comprise at least one of pickup sensitivity, an exposing condition, a shooting mode, sharpness, a kind of a light source, an operation, and a display magnification.

10. (original): The method in accordance with claim 8, wherein the image inputting conditions comprise at least one of pickup sensitivity, an exposing condition, a shooting mode, sharpness, a kind of a light source, an operation, and a display magnification.

11. (original): The method in accordance with claim 7, wherein said third step comprises the step of multiplying each pixel data around the subject pixel data by a particular weighting coefficient on the basis of a position of said pixel data to thereby calculate the mean value.

12. (new). The device according to claim 5, wherein said difference calculating circuit calculates a selecting difference between the subject pixel data and an average value calculated with 1) the subject pixel data and 2) data around the subject pixel, and wherein the comparing circuit compares the selecting difference and the threshold to determine which of the subject pixel data and the average value should be used.

13. (new). The device of claim 1, wherein the noise reducing circuit is operable to alternatively select one of the subject pixel data and the mean value.

14. (new). The device of claim 1, wherein the mean value includes a sum of the subject pixel data and n pixel data around said subject pixel, said sum divided by $n+1$, where n is an integer.

15. (new). The method of claim 7, wherein the mean value includes a sum of the subject pixel data and n pixel data around said subject pixel, said sum divided by $n+1$, where n is an integer.

16. (new). The device of claim 3, wherein the threshold is determined for an entire image, and the correcting circuit operates on a pixel by pixel basis to adjust the threshold.

17. (new). The method of claim 8, wherein the threshold value is determined for an entire image, and the correcting of the threshold value is performed on a pixel by pixel basis to adjust the threshold.

18. (new). The device of claim 1, further including an edge detector, wherein the edge detector causes selection of the subject pixel data regardless of the difference between the subject pixel data and mean value when an edge is detected at said subject pixel.

19. (new). The method of claim 7, further comprising detecting whether an edge occurs

at the subject pixel, wherein selection of the subject pixel data occurs regardless of the difference between the subject pixel data and mean value when an edge is detected at said subject pixel.

20. (new): An image signal processing device for executing signal processing on image data representative of an input image, comprising:

a signal processing circuit for executing signal processing on the image data for correction and recording, and executing noise reduction on individual image data in accordance with at least one of image inputting conditions and a pixel level;

said signal processing circuit comprising:

a threshold generating circuit for generating a threshold by taking account of at least one of the image inputting conditions and the pixel level; and

a noise reducing circuit for producing, during the noise reduction, a difference in level between subject pixel data whose noise is to be detected and a mean value of pixel data around the subject pixel data, and selecting either one of the subject pixel data and the mean value in accordance with the difference and the threshold.

21. (new): The device in accordance with claim 20, wherein said threshold generating circuit comprises:

a condition collecting circuit for collecting various conditions for determining the threshold; and

a calculating circuit for calculating the threshold in accordance with the conditions collected.

22. (new): The device in accordance with claim 21, wherein said threshold generating

circuit further comprises a threshold correcting circuit for correcting the threshold in accordance with a level of the subject pixel data.

23. (new): The device in accordance with claim 22, wherein said condition collecting circuit collects at least one of pickup sensitivity, an exposing condition, a shooting mode, sharpness, a kind of a light source, an operation, and a display magnification.

24. (new): The device in accordance with claim 20, wherein said noise reducing circuit comprises:

a difference calculating circuit for calculating a difference in level between the subject pixel data and the pixel data around the subject pixel data;

a mean value calculating circuit for calculating a mean value of the pixel data around the subject pixel data;

a comparing circuit for comparing the difference and the threshold to thereby determine which of the subject pixel data and the mean value should be used; and

a switch for selecting either one of the subject pixel data and the mean value in accordance with a result of comparison output from said comparing circuit.

25. (new): The device in accordance with claim 24, wherein said mean value calculating circuit multiplies each pixel data around the subject pixel data by a particular weighting coefficient on the basis of a position of the pixel data to thereby calculate the mean value.